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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/576,688

04/21/2006

Hiroyuki Hayashikawa

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EXAMINER

PARK, KINAM

ART UNIT

PAPER NUMBER

2828

MAIL DATE

DELIVERY MODE

01/06/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/576,688	HAYASHIKAWA ET AL.	
	Examiner	Art Unit	
	KINAM PARK	2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/10/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In view of the Appeal brief filed on 11/10/08, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

Response to Arguments

2. Applicant's arguments filed on 11/10/08 have been fully considered but they are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over MOTOMIYA et al. (JP 02177582) and further, in view of AKAGI (JP 09266342).

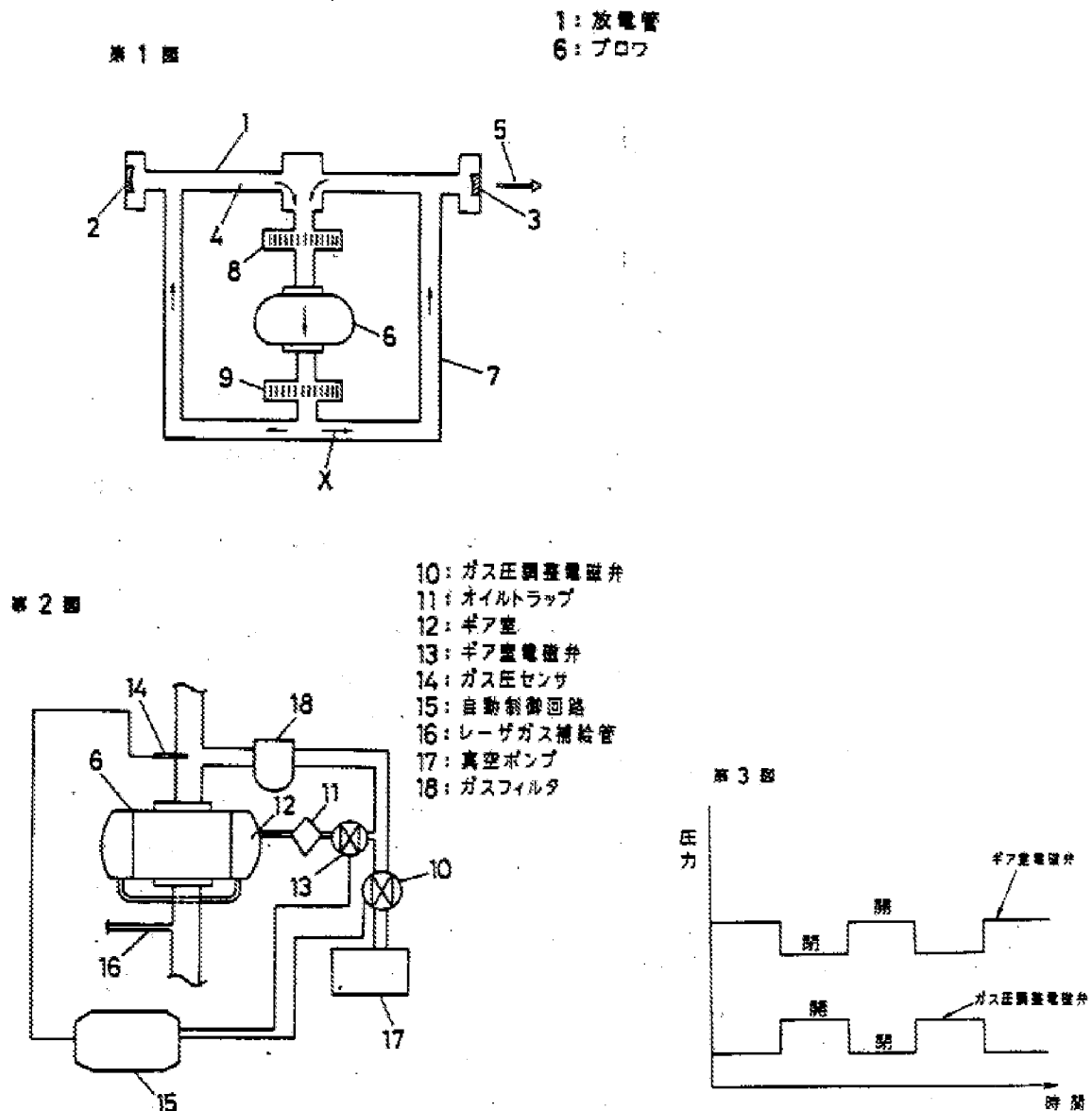
Regarding **claim 1**,

MOTOMIYA et al. discloses in figure 1-3, abstract and specification:

1. A gas laser oscillator comprising:
 - a discharge part (1) for exciting laser gas;
 - an air blower (6) for blowing the laser gas;
 - a laser gas flow pipe (7) constituting a circulation route of laser gas between the discharge part (1) and the air blower (6);
 - a driving part (6, center portion) for driving the air blower; a divide wall (line between 6 and 12) separating the air blower and the driving part;
 - a gas supply apparatus (inherent, near 16) having at least one valve, and supplying laser gas to the laser gas flow pipe;
 - a main ejection apparatus (pipe with 10) having at least one valve (10) and ejecting laser gas out from the laser gas flow pipe;
 - a sub ejection apparatus (pipe with 13) having a pipe ejecting the laser gas from the driving part of the air blower;
 - a detector (14) for detecting an amount of the laser gas flowing through the laser gas flow pipe;

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a controller (15) controlling each valve of the gas supply apparatus and the main ejection apparatus.



However, MOTOMIYA et al. are silent as to a clogged laying pipe judge part judging the laying pipe of the sub ejection apparatus to be clogged when the detected

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amount of the laser gas is smaller than a predetermined value, wherein a signal from the detector is input to the controller; and wherein the controller compares the ejected amount of the laser gas which is detected at a time the valve of the main ejection apparatus is closed, with a predetermined value.

AKAGI discloses in figure 2, 3 and abstract the solution for the clogging of a leak valve by setting the open/close duty value of a gas exhaustion valve and operating a display means when the actual open/close duty value of the gas exhaustion value becomes the set value or higher.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to combine the solution for the clogging of a leak valve of AKAGI with a gas laser oscillator of MOTOMIYA et al. because this provides the solution for the clogging of a leak valve due to dust, oil mist, etc., mixed with laser gas (see, Abstract of AKAGI).

Regarding **claim 2, 3,**

Note that MOTOMIYA et al. discloses in figure 1-3, abstract and specification an opening and closing cycle detector (15) for detecting an opening and closing cycle of the valves of the gas supply apparatus when the valve of the main ejection apparatus is closed (see, figure 3) and AKAGI discloses in figure 2, 3 and abstract the limitation of the clogged laying pipe judge part judging the pipe of the sub ejection apparatus clogged when the detected opening and closing cycle is longer than a predetermined value (see, abstract of AKAGI) (**claim 2**), an alarm when the clogged laying pipe judge

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part judges the pipe of the sub ejection apparatus is clogged (see, 24, figures 1 of AKAGI) (**claim 3**).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

lehis (US 4956846) discloses the gas laser device.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kinam Park whose telephone number is (571) 270-1738. The examiner can normally be reached on from 9:00 AM-5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **MINSUN HARVEY**, can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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/K. P./

Examiner, Art Unit 2828

/Minsun Harvey/
Supervisory Patent Examiner, Art Unit 2828